

REMARKS

This is in response to the Office Action mailed on February 24, 2004.

Claims 2, 10, 11, 29, 32, 34, 37, and 76 are amended. Claims 2-6, 10-18, 29-30, 32-38, 50-52, 76, and 77 are pending in this application.

Information Disclosure Statement

Applicant submitted an Information Disclosure Statement and a 1449 Form on November 20, 2003 with a Request for Continued Examination. Applicant respectfully requests that an initialed copy of the 1449 Form be returned to Applicants' Representatives to indicate that the cited references have been considered by the Examiner.

§103 Rejection of the Claims

Claims 2-6, 10, 11, 13-15, 29, 30, 32, 37, 38, 50, 51, 76, and 77 were rejected under 35 USC § 103(a) as being unpatentable over Kashiwara et al. (U.S. Patent No. 5,382,817) in combination with Gaulier et al. (U.S. Patent No. 4,450,048) and Hayakawa et al. (U.S. Patent No. 5,685,968).

Independent claim 2 is amended. As amended, claim 2 recites, among other things, “forming a second metal layer over the dielectric” and “oxidizing at least a portion of the second metal layer to form a second dielectric”. Applicant is unable to find in Kashiwara et al., Gaulier et al., and Hayakawa et al. “forming a second metal layer over the dielectric” and “oxidizing at least a portion of the second metal layer to form a second dielectric”. Thus, claim 2 is patentable over Kashiwara et al., Gaulier et al., and Hayakawa et al. Accordingly, Applicant requests that the rejection be reconsidered and withdrawn and that claim 2 be allowed.

Independent claim 10 is amended. As amended, claim 10 recites, among other things, “forming a second metal layer over the capacitor dielectric” and “oxidizing at least a portion of the second metal layer to form a second capacitor dielectric”. Applicant is unable to find in Kashiwara et al., Gaulier et al., and Hayakawa et al. “forming a second metal layer over the capacitor dielectric” and “oxidizing at least a portion of the second metal layer to form a second capacitor dielectric”. Thus, claim 10 is patentable over Kashiwara et al., Gaulier et al., and

Hayakawa et al. Accordingly, Applicant requests that the rejection be reconsidered and withdrawn and that claim 10 be allowed.

Independent claim 11 is amended. As amended, claim 11 recites, among other things, “forming a second metal layer over the capacitor dielectric” and “oxidizing at least a portion of the second metal layer to form a second capacitor dielectric”. Applicant is unable to find in Kashiwara et al., Gaulier et al., and Hayakawa et al. “forming a second metal layer over the capacitor dielectric” and “oxidizing at least a portion of the second metal layer to form a second capacitor dielectric”. Thus, claim 11 is patentable over Kashiwara et al., Gaulier et al., and Hayakawa et al. Accordingly, Applicant requests that the rejection be reconsidered and withdrawn and that claim 11 be allowed.

Independent claim 29 is amended. As amended, claim 29 recites, among other things, “forming a second metal layer over the oxidized layer” and “oxidizing at least a portion of the second metal layer to form a second oxidized layer”. Applicant is unable to find in Kashiwara et al., Gaulier et al., and Hayakawa et al. “forming a second metal layer over the oxidized layer” and “oxidizing at least a portion of the second metal layer to form a second oxidized layer”. Thus, claim 29 is patentable over Kashiwara et al., Gaulier et al., and Hayakawa et al. Accordingly, Applicant requests that the rejection be reconsidered and withdrawn and that claim 29 be allowed.

Independent claim 32 is amended. As amended, claim 32 recites, among other things, “forming a second metal layer over the metal oxide” and “oxidizing at least a portion of the second metal layer to form a second metal oxide”. Applicant is unable to find in Kashiwara et al., Gaulier et al., and Hayakawa et al. “forming a second metal layer over the metal oxide” and “oxidizing at least a portion of the second metal layer to form a second metal oxide”. Thus, claim 32 is patentable over Kashiwara et al., Gaulier et al., and Hayakawa et al. Accordingly, Applicant requests that the rejection be reconsidered and withdrawn and that claim 32 be allowed.

Independent claim 37 is amended. As amended, claim 37 recites, among other things, “forming a second metal layer over the metal oxide” and “oxidizing at least a portion of the second metal layer to form a second metal oxide”. Applicant is unable to find in Kashiwara et al., Gaulier et al., and Hayakawa et al. “forming a second metal layer over the metal oxide” and

“oxidizing at least a portion of the second metal layer to form a second metal oxide”. Thus, claim 37 is patentable over Kashiwara et al., Gaulier et al., and Hayakawa et al. Accordingly, Applicant requests that the rejection be reconsidered and withdrawn and that claim 37 be allowed.

Independent claim 76 is amended for clarity. As amended, claim 76 recites, among other things, “covering the oxidized portion with a conductive layer” and “electrolytically oxidizing at least a portion of the conductive layer to form a second dielectric oxidized portion”. Applicant is unable to find in Kashiwara et al., Gaulier et al., and Hayakawa et al. “covering the oxidized portion with a conductive layer” and “electrolytically oxidizing at least a portion of the conductive layer to form a second dielectric oxidized portion. Thus, claim 76 is patentable over Kashiwara et al., Gaulier et al., and Hayakawa et al. Accordingly, Applicant requests that the rejection be reconsidered and withdrawn and that claim 76 be allowed.

Since independent claims 2, 10, 11, 29, 32, 37, and 76 are patentable over Kashiwara et al., Gaulier et al., and Hayakawa et al., the dependent claims of independent claims 2, 10, 11, 29, 32, 37, and 76 are also patentable over Kashiwara et al., Gaulier et al., and Hayakawa et al. for reasons presented above regarding the independent claims plus the elements in the dependent claims. Accordingly, Applicant requests that the rejection of the dependent claims of claims 2, 10, 11, 29, 32, 37, and 76 be reconsidered and withdrawn and the dependent claims also be allowed.

Claims 16-18 were rejected under 35 USC § 103(a) as being unpatentable over Kashiwara et al. in combination with Gaulier et al. and Hayakawa et al. as applied to claims 2-6, 10, 11, 13-15, 29, 30, 32, 37, 38, 50, 51, 76, and 77 above, and further in view of Dickey et al. (U.S. Patent No. 4,936,957).

Claims 16-18 depend directly or indirectly from independent claim 11. Claim 11 recites, among other things, “forming a second metal layer over the capacitor dielectric” and “oxidizing at least a portion of the second metal layer to form a second capacitor dielectric”. Applicant is unable to find in Kashiwara et al., Gaulier et al., Hayakawa et al., and Dickey et al. “forming a second metal layer over the capacitor dielectric” and “oxidizing at least a portion of the second metal layer to form a second capacitor dielectric”. Thus, claim 11 is patentable over Kashiwara et al., Gaulier et al., Hayakawa et al., and Dickey et al. Therefore, dependent claims 16-18 are

also patentable over Kashihara et al., Gaulier et al., Hayakawa et al., and Dickey et al.

Accordingly, Applicant requests that the rejection be reconsidered and withdrawn and that claims 16-18 be allowed.

Claim 12 was rejected under 35 USC § 103(a) as being unpatentable over Kashihara et al. in combination with Gaulier et al. and Hayakawa et al. as applied to claims 2-6, 10, 11, 13-15, 29, 30, 32, 37, 38, 50, 51, 76, and 77 above, and further in view of Jones, Jr. et al. (U.S. Patent No. 5,696,394).

Claim 12 depends from independent claim 11. Claim 11 recites, among other things, “forming a second metal layer over the capacitor dielectric” and “oxidizing at least a portion of the second metal layer to form a second capacitor dielectric”. Applicant is unable to find in Kashihara et al., Gaulier et al., Hayakawa et al., and Jones, Jr. et al. “forming a second metal layer over the capacitor dielectric” and “oxidizing at least a portion of the second metal layer to form a second capacitor dielectric”. Thus, claim 11 is patentable over Kashihara et al., Gaulier et al., Hayakawa et al., and Jones, Jr. et al. Therefore, dependent claim 12 is also patentable over Kashihara et al., Gaulier et al., Hayakawa et al., and Jones, Jr. et al. Accordingly, Applicant requests that the rejection be reconsidered and withdrawn and that claim 12 be allowed.

Allowable Subject Matter

Claims 34-36 were indicated to be allowed.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 373-6969 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date

May 24, 2004

By


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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 24 day of May, 2004.

Name

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Signature

